

AMENDMENTS

In the Specification:

Please amend the specification as follows:

Please replace the first paragraph on page 3 with:

Conventional neurostimulators use fixed rate trains of either monophasic or biphasic electrical pulses of a fixed amplitude to stimulate neural tissue. Neurons in the immediate vicinity of the electrodes are induced to fire (i.e. are recruited) by the electrical pulses thereby modifying the natural electrical activity in the brain. During an epileptic event, there is abnormal synchronization of neural activity in the brain. The present invention improves upon the prior art by varying the timing, amplitude and/or duration of the pulses to more effectively disrupt the synchronized activity. Furthermore, the subject invention analyzes the effect on the brain of the electrical pulses, and decides how to modify the burst parameters in a subsequent burst to most effectively terminate the seizure.

In the Claims:

Please amend claims 1-5, 9-15, 18-20, 22, 24-29, 33-38, 41-44, 46-49, 51, 54, 57, 58, 60, 62-66, 69, 70, 72-74, 77 and 81 as follows:

1. (Amended). A method for treating an abnormal neurological condition comprising the steps of:

applying to brain tissue at least one electrical burst comprising a multiplicity of pulses,

said pulses having pulse parameters; and

varying at least one of the pulse parameters during the at least one electrical burst.